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PATENT

**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

Applicant: Kessler, Damien et al.

Serial No.: 09/841,140

Filed: April 24, 2001

Title: SYSTEM AND DATA FORMAT FOR PROVIDING SEAMLESS  
STREAM SWITCHING IN A DIGITAL VIDEO DECODER

Group Art Unit: 2621

Examiner: DAVID CZEKAJ

**CANCELLATION OF CLAIMS UNDER 37 CFR§ 116(b) ON  
FILING OF APPEAL BRIEF**Mail Stop Non-Fee Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Contemporaneously with the filing of an Appeal Brief, please  
amend the above-identified application as follows.

The listing of CLAIMS begins on Page 2.

REMARKS begin on Page 6.

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**CLAIMS:**

1. (Previously presented) A method for processing packetized video data, comprising the steps of:
  - receiving a first video stream comprising encoded data representing a first video program having a first display resolution;
  - simultaneously receiving a second video stream comprising encoded data representing a second video program of a second display resolution lower than said first display resolution
  - generating transmission identification information for signaling a transition from said first display resolution program to said second display resolution program ;
  - seamlessly incorporating said first video program encoded data and said second video program data and said identification information into packetized data; and
  - providing said packetized data for output in a seamless stream for output to a transmission channel.
2. (Previously presented) The method of claim 1, wherein said transition is a seamless transition.
3. (Previously presented) The method of claim 1, further comprising the step of upconverting the decoded second resolution data in a decoder to provide commercials of first resolution for seamless insertion in the video program.
4. (Previously presented) The method of claim 1, wherein the second video program comprises a video commercial.
5. (Previously presented) The method of claim 1, wherein the first video program is a network video feed and the second video program is a local video program.

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6. (Previously presented) The method of claim 1, wherein the second video program is a local news program.

7. (Previously presented) The method of claim 1, wherein said encoded data representing the first video program is generated by a network station and said encoded data representing the second video program ~~are~~is generated by a local station.

8. (Previously presented) The method of claim 7, wherein said packetized data is output to a transmission channel by a satellite.

9. (Previously presented) A method for decoding image representative input data representing a video program of a first display resolution and incorporating video segments of a lower second display resolution, comprising the steps of:

identifying a first video stream of encoded data representing a video program of a first display resolution;

identifying a second simultaneous stream of encoded data representing a video segment of a second display resolution lower than said first display resolution for insertion within said video program;

acquiring identification information for signaling a transition from said first display resolution to said second display resolution; and

decoding said video program encoded data and said video segment encoded data simultaneously to provide a decoded first resolution data output and a decoded second resolution data output respectively using said identification information; and

seamlessly formatting said first and second resolution decoded data outputs for display.

10. (Previously presented) The method of claim 9, further comprising the step of upconverting the decoded second resolution data to

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provide video segment data of first resolution for seamless insertion in the video program.

11. (Previously presented) The method of claim 9, wherein the video segment represents a video commercial.

12. (Previously presented) The method of claim 9, wherein the first video program is a network video feed and the video segment is a local video program.

13. (Previously presented) The method of claim 9, wherein the video segment is a local news program.

14. (Previously presented) The method of claim 9, wherein said encoded data representing the first video program is generated by a network station and said encoded data representing the video segment ~~are~~is generated by a local station.

15. (Previously presented) The method of claim 14, wherein said packetized data is output to a transmission channel by a satellite.

16. (Previously presented) A method according to claim 9, wherein said decoding step comprises the step of storing both said data representing said video program and data representing said video segment in a buffer.

17. (Previously presented) A method according to claim 16, wherein said buffer normally stores video data of said first, higher, display resolution.

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18. (Previously presented) A method according to claim 17, wherein said buffer is MPEG compliant.

19. (Canceled) ~~A video broadcasting method comprising the steps of:~~  
~~receiving a first video stream comprising high definition video information from a network provider;~~  
~~translating the received high definition video information to lower definition video information;~~  
~~simultaneously providing a second local video stream comprising video information at lower definition; and~~  
~~seamlessly incorporating said translated information and said second video stream into a datastream; and~~  
~~transmitting the translated lower definition video information and the lower definition local information in a single datastream to a satellite via an uplink path.~~

20. (Canceled) ~~A method according to claim 19, wherein:~~  
~~the high definition video information is high definition television information; and~~  
~~the lower definition video information includes at least one of standard definition television program information, news and commercials.~~

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**REMARKS**

No claims have been allowed.

**I. The Rejections**

Claims 1-2, 4-8, 11-15 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Desai et al (US 6034746) in view of Chen et al. (US 5917830).

(b) Claims 3, 9-10, 16-18 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Desai et al (US 6034746) in view of Chen et al. (US 5917830) and further in view of Sakamoto et al. (US 6026164).

**2. The Response**

The rejections of claims 1 – 18 are addressed in Applicant's Appeal Brief filed contemporaneously herewith. Claims 19 and 20 are cancelled hereby in order to reduce the issues on appeal.

Cancellation of claims 19 and 20 does not affect any other claims and entry of this amendment is therefore requested to narrow the issues on appeal.

Entry of this amendment under 37 CFR 116 (b) is respectfully requested on the grounds it narrows the issues on appeal.

Respectfully submitted,



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December 21, 2007

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

DEC 21 2007

Applicant : DAMIEN KESSLER, ET AL.  
Serial No. : 09/841,140  
Filed : April 24, 2001  
For : SYSTEM AND DATA FORMAT FOR PROVIDING  
SEAMLESS STREAM SWITCHING IN A DIGITAL

VIDEO

DECODER

Examiner : David Czekaj  
Art Unit : 2621

APPLICANTS' APPEAL BRIEF

May It Please The Honorable Board:

Applicants appeal the final rejection of Claims 1 - 18 of the above-identified application in the Office Action mailed April 10, 2007, as supplemented by the Advisory Action of September 6, 2007, and request that such rejection be reversed.

The \$ 500.00 fee for filing this Appeal Brief is to be charged to Deposit Account No. 07-0832. A Petition for Extension of Time, extending the deadline for filing the Appeal Brief to expire on December 27, 2007 is attached. Please charge the fee for the Petition and any additional fee or credit any overpayment to the above-identified Deposit Account.

Applicants do not request an oral hearing.

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**REAL PARTY IN INTEREST**

The real party in interest, the Assignee, is:

Thomson Licensing  
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FRANCE**RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

**STATUS OF THE CLAIMS**

Claims 1 - 20 have been rejected.

Claims 1 - 18 are appealed. Claims 19 and 20 have been canceled by an accompanying amendment to narrow the issues of this Appeal.

**STATUS OF AMENDMENTS**

All earlier amendments were entered and are reflected in the appealed claims 1 - 18 included in Appendix I.

**SUMMARY OF THE CLAIMED SUBJECT MATTER**

Two independent method claims, claims 1 and 9 are presented. The two independent claims are as follows.

**CLAIM 1**

Claim 1 relates to a method for processing simultaneously received first and second streams of image-representative (video) data, where the first stream represents a first video program having a first display resolution (see Fig. 1, HD or "high definition" stream 116; page 1, lines 8-11, page 2, lines 31 - 32 and page 6, line 30 - page 7, line 10 of the description) and the second stream represents a second video program having a second display resolution lower than the first display resolution (see Fig. 1, SD or "standard definition" stream 123 and page 2, lines 5 - 6 of the description).



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Claim 1 further includes the step of "processing transmission identification information for signaling a transition from said first display resolution program to said second display resolution program" (page 8, lines 17 – 26 – see, particularly, "stream switch signal").

Claim 1 further requires "seamlessly incorporating" data from the first and second streams into a seamless (single) datastream (see Fig. 2C and page 1, lines 10 – 11 and page 6, line 30 – page 7, line 15) for output in a seamless stream.

Claims 2 – 7 are dependent on claim 1 and claim 8 is dependent on claim 7.

**CLAIM 9:**

Claim 9 relates to a method for decoding image representative input data representing a first video program having a first display resolution (see Fig. 1, HD or "high definition" stream 116 and page 2, lines 31 – 32 of the description) and incorporating video segments having a second display resolution lower than the first display resolution (see Fig. 1, SD or "standard definition" stream 137 and page 2, lines 5 - 6 of the description).

Claim 9 further includes the steps of identifying a first video stream of encoded data representing a video program of a first display resolution (the high definition or HD video stream – see page 6, beginning at line 30) and identifying a second simultaneous stream of encoded data representing a video segment of a second display resolution lower than the first display resolution (the standard definition or SD video stream – see page 6, beginning at line 32) for insertion within a video program.

Claim 9 also requires acquiring identification information for signaling a transition from the first display resolution program to the second display resolution (page 8, lines 17 – 26 "stream switch signal"; see also page 14, line 16 and following "splicing point").

Claim 9 further requires decoding the video program and video segment (e. g. commercial) data simultaneously (see integrated receiver decoder (IRD) at the receiver side described at page 8, lines 14 – 30).

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Finally, claim 9 recites "seamlessly formatting" data from the first and second simultaneously decoded data outputs into a seamless (single) datastream (see Fig. 2C and page 1, lines 10 – 11 and page 6, line 30 – page 7, line 12).

Claims 10 – 14 and 16 are dependent on claim 9. Claim 15 is dependent on claim 14, claim 17 is dependent on claim 16 and claim 18 is dependent on claim 17. Thus, all of claims 9 – 18 contain the limitations of claim 9.

There is no "means plus function" language recited in any of the claims.

#### GROUND OF REJECTION TO BE REVIEWED ON APPEAL

(1) Whether the methods claimed in independent Claim 1, as well as dependent claims 2, 4 – 8 and 11 – 15 are unpatentable under 35 U.S.C. §103(a) over Desai et al. (U.S. Patent 6,034,746) in view of Chen et al. (U.S. Patent 5,917,830); and

(2) Whether the methods claimed in independent claim 9 and claims 10 and 16 – 18 dependent on claim 9, or claim 3 (dependent on claim 1) are unpatentable under 35 U.S.C. §103(a) over Desai et al. (U.S. Patent 6,034,746) in view of Chen et al. (U.S. Patent 5,917,830) and further in view of Sakamoto et al. (U.S. Patent 6,026,164).

#### ARGUMENT

##### GENERAL STATEMENT OF PROPER BASIS FOR REJECTIONS UNDER 35 U.S.C. § 103(a)

In a "Notice" dated October 3, 2007, the Director of the USPTO promulgated "Examination Guidelines For Determining Obviousness Under 35 USC 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex, Inc.", which case was decided April 30, 2007. Since the KSR case was decided before the Advisory Action of September 6, 2007 was issued in this application and the "Guidelines" were identified as "effective October 10, 2007", those Guidelines will be considered as applying to this appeal.

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In the "Guidelines", the Director stated:

"As reiterated by the Supreme Court in KSR, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.* Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:

- (1) Determining the scope and content of the prior art;
- (2) Ascertaining the differences between the claimed invention and the prior art; and
- (3) Resolving the level of ordinary skill in the pertinent art."

The "Guidelines" go on to provide specific (explicit) "rationales" for supporting a legal conclusion of obviousness based on combinations of references as follows (emphasis added):

"The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, [citation omitted] stated that '[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness'.

#### Rationales

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (E) "Obvious to try" – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

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(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention."

The "Guidelines" go on to recognize the continued viability of the TSM rationale (item "G") as follows:

"If the search of the prior art and the resolution of the Graham factual inquiries reveal that an obviousness rejection may be made using the familiar teaching-suggestion-motivation (TSM) rationale, then such a rejection using the TSM rationale can still be made. Although the Supreme Court in KSR cautioned against an overly rigid application of TSM, it also recognized that TSM was one of a number of valid rationales that could be used to determine obviousness".

Therefore, consistent with the familiar and established TSM rationale (the rationale that the Examiner appears to have applied), in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings of a plurality of references in the particular manner claimed. Third, there must be a reasonable expectation of success. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's own disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000).

In a long line of cases, the Federal Circuit has stated that obviousness can be shown only when prior art of record provides a

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"suggestion or incentive", *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577 (Fed. Cir. 1984), "teaching, suggestion or incentive", *In re Geiger*, 815 F.2d 686, 688 Fed. Cir. 1987), "reason, suggestion or motivation", *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992), or "teaching, suggestion or motivation", *In re Raynes*, 7 F.3d 1037, 1039 (Fed. Cir. 1993) to combine existing elements from different sources in the manner claimed.

This firm rule, that an Examiner cannot reject claims as obvious unless he can point to specific references suggesting elements could be combined or modified in the manner claimed, has been repeated many times by the Federal Circuit. See *In re Dembiczak*, 175 F.3d 994, 999; *Ruiz v. A. B. Chance Co.*, 234 F. 3d 654,665 (Fed. Cir. 2000); *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

In the case of *KSR International Co. v. Teleflex, Inc. et al.*, 550 U. S. \_\_\_\_\_ (2007), decided April 30, 2007, (see Section "B", pages 14 – 15 of the published decision), the U. S. Supreme Court discussed this requirement of "teaching, suggestion or motivation" and stated:

"When it first established the requirement of demonstrating a teaching, suggestion or motivation to combine known elements in order to show that the combination is obvious, the Court of Customs and Patent Appeals captured a helpful insight. See *Application of Bergel*, 292 F 2d 955, 956 – 957 (1961). — In the years since the Court of Customs and Patent Appeals set forth the essence of the TSM test, the Court of Appeals no doubt has applied the test in accord with these principles in many cases. There is no necessary inconsistency between the idea underlying the TSM test and the *Graham* analysis".

This latter reference to the "Graham analysis" is set out in *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966).

It is therefore respectfully submitted that under the published guidelines incorporating the latest Supreme Court decision, the Examiner is required to find all elements of the claims in citable references, to find such references which teach, suggest and/or motivate the person of ordinary skill to combine such elements in the manner set forth in the rejected claims and, most importantly, to provide a "clear articulation" of the reason(s) why the

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claimed invention would have been obvious" (*KSR supra*) . The *KSR* opinion requires that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness'. Absent the elements or the showing of a teaching, suggestion or motivation to combine such elements in the manner claimed, and a clear statement and rational analysis of its basis, an obviousness rejection cannot stand.

The examiner bears the burden of establishing a *prima facie* case of obviousness and "can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). To support a conclusion that a claimed combination is obvious, either: (a) the references must expressly or impliedly suggest the claimed combination to one of ordinary skill in the art, or (b) the examiner must present a convincing line of reasoning as to why a person of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985).

The § 103(a) Rejections of Claims 1 – 2, 4 – 8 and 11 - 15 Are Traversed

The Final Rejection does not make out a *prima facie* case of obviousness with respect to the independent method Claim 1 or the dependent method claims 2 and 4 – 8 which are dependent on claim 1. Claims 11 – 15, which are dependent on Claim 9, will be considered below.

As indicated by the Examiner, Desai is concerned with combining encoded data representing a first (main) video program with encoded data representing a second video program such as a commercial. Desai mentions (col. 4, lines 5 – 10) that the second program may possess attributes different from those in the original data stream such as "bit rate, play rate, resolution". However, Desai goes about providing a main video program along with a commercial in a significantly different way than Appellant's claimed invention. In Desai, (see col. 5, lines 1-4), it is stated:

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"To allow for insertion of commercial data, the distributor of a movie provides control information, including a commercial insert file, and one or more data files, along with the movie".  
(emphasis added).

That is, according to Desai, the combination of a movie, with a commercial in the form of a "file" and one or more data files is formed into a single data transmission by a distributor at the distributor's facility and then a single complete datastream is transmitted to a client (customer).

Specifically, Desai (col. 5, line 23) states:

"When a client (e.g. client 10 in FIG. 1) requests an audio/video asset, a play list is typically constructed by a controller (e.g., controller 16 in FIG. 1). The play list is used to control which data is sent, and in what order the data is sent, from data pump 18 to client 10. The commercial insert file and the data files allow a play list to be constructed such that the movie is played with commercials" (emphasis added).

This "play list" is constructed in Desai at the distributor's facility and does not involve "receiving a first video stream, etc." (the movie) and "simultaneously receiving a second video stream, etc." (a commercial) as required by Claim 1. Furthermore, the operation at the client end does not comply with claim 1 either (see above).

In the Final Rejection, the Examiner acknowledges, referring to specific attributes recited in the rejected claims, that "Desai fails to disclose simultaneously receiving and seamlessly incorporating the first and second video streams" into packetized data as required by each of rejected claims 1 – 8.

It should also be noted that dependent claims 11 – 15, which are dependent on claim 9 (see below), also include the language "simultaneously" and "seamlessly" in a similar way in connection with two data streams. Therefore, claims 9 – 18 all are submitted to distinguish over Desai as well.

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The Examiner seeks to bridge this gap by relying upon Chen et al. Chen describes "a method and apparatus --- for splicing a secondary packetized data stream, such as a commercial, with a primary packetized data stream, such as a network television program ----- (which method) is particularly suitable for use at a cable system headend." (col. 2, lines 11 – 17).

In the Final Rejection, according to the Examiner:

"Chen teaches that inserting commercials into streams requires a number of time-consuming steps that must be implemented with additional hardware (Chen: column 1, lines 40 – 50). To help alleviate this problem, Chen discloses "simultaneously receiving a second video stream" (Chen: figure 4, where the second stream is the insertion stream) and "seamlessly incorporating the first and second stream" (Chen: column 6, lines 48 – 54)".

The Examiner concluded that "it would have been obvious --- to take the apparatus disclosed by Desai and add the processing taught by Chen in order to obtain an apparatus that operates more efficiently by reducing the time needed to insert commercials into a stream" (Final Rejection, bottom of page 4).

However, the Examiner is mistaken in stating that Chen discloses "simultaneously receiving a second video stream".

Most importantly, the Examiner mis-states what Chen discloses (Rejection, middle of page 4) when he states:

"Chen discloses "simultaneously receiving a second video stream" (Chen: figure 4, wherein the second stream is the insertion stream)".

Rather Chen describes his system as follows.

At col. 4, line 36, Chen states "The DAIM (Digital Ad Insertion Module) 130 receives the information (a network television program) as a compressed digital packetized data stream and accesses an inserted stream storage unit" (emphasis and parenthetical words added).



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"The storage unit 135 may include audio tapes (DATs), digital video disks (DVDs), compact audio disks (CDs) or other magnetic or optical storage media." (col. 4, lines 41 – 44).

At col. 8, line 34, Chen states "At a time prior to T<sub>in</sub>, (the ad insertion point), — the ISP 420 parses the input insertion stream to locate the sequence start code. When a packet with a sequence start code is detected in the insertion stream, the ISP puts the address of this packet into a register (not shown). The address is a read address for the insertion stream."

Thus, before starting the ad insertion stream, Chen simply "accesses" and examines the proposed ad data which is in storage to locate a "start code" and its address. Thus Chen does not provide a video stream which a system is "simultaneously receiving" along with another video stream. The address in storage for a "sequence start code" is identified and placed in a register (obviously there is no second video stream being "simultaneously receive(ed)" at that time). It is not until later that the ad starts running as will be pointed out below.

At that time (prior to T<sub>in</sub>), according to Chen, only the "compressed digital packetized data stream" (the network television program) is being received. The intended "input insertion stream" is held (stored) in "storage unit 135" and the system therefore is not "simultaneously receiving a second video stream".

Beginning at col. 8, line 43, Chen states "As soon as T<sub>in</sub> is detected, -----the ISP 420 sends the first packet of the insertion stream to the syntax processor 470 --" (emphasis added).

This means that the insertion stream (advertisement) is not received and is not transferred out of the storage unit 135 until the time corresponding to the ad insertion point (T<sub>in</sub>) is reached in the main program video stream. Chen's main program is halted at that time and therefore the insertion (ad) stream is not being "received simultaneously" with the program video stream. Chen's first and second data streams are produced sequentially, not simultaneously. This is confirmed by Chen at least twice (see, also col. 7, line 65 et seq.). Chen can follow this different approach because his end result is not being supplied to a user (viewer) until after his entire process of receiving a main data stream, stopping that stream, then

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retrieving an auxiliary data stream from memory, then attaching the auxiliary stream after the main stream, then restarting the main stream is completed.

Thus, neither Chen nor Desai discloses the significant claim elements of first and second simultaneously received data streams which are subsequently combined seamlessly.

Chen also describes the operation of his Fig. 4 arrangement by referring to the flow chart of Fig. 5 (see Chen, col. 12, beginning at line 28.). Fig. 4 by itself does not disclose anything about the timing of Chen's main stream and insertion stream. The description of Fig. 5 confirms that Chen does not provide two simultaneous data streams but combines sequential segments of first and second data streams at the headend of the system. For example, in Fig. 5, Chen describes a sequence of steps by describing step 512 as "Add sequence end code field to last main stream packet", followed by step 514 and, only then, a subsequent step 516 occurs which is "Process first packet of insertion stream". Thus, the main stream stops ("last packet") and the insertion stream then starts ("first packet") in Chen. There are clearly no first and second streams that are simultaneously received as required by the rejected claims but rather there is a start – stop relationship between the main and insertion streams of Chen.

In order to satisfy all of the criteria of the familiar and established TSM rationale (the rationale that the Examiner appears to have applied), and in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. As pointed out above, neither Desai nor Chen discloses or suggests "receiving a first video stream" and "simultaneously receiving a second video stream" as claimed. The absence of this step in either reference precludes support for any *prima facie* case of obviousness based on Chen and Desai (or Chen plus Desai plus Sakamoto – see below).

Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the teachings of a plurality of references in the manner claimed. Third, there must be a reasonable expectation of success. The teaching or suggestion to make the

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claimed invention and the reasonable expectation of success must be found in the prior art, and not based on the applicant's own disclosure. *In re Vaeck*, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

It has not been demonstrated that there is any motivation for a person of ordinary skill to combine these two references. In order to meet the requirement for "motivation", the Examiner stated:

"Chen discloses in column 1, lines 40 – 50, that a number of time consuming steps are required for inserting commercials into streams. Hence Chen discloses an apparatus trying to reduce the number of steps needed to perform these operations. Since both references are within the same field of endeavor and contain similar subject matter, the combination is deemed proper". (Advisory Action, last page).

But that statement does not demonstrate there is any "teaching, suggestion or motivation" for combining these references in any particular manner. Furthermore, what is it that the Examiner proposes to combine from the Desai and Chen references? The Examiner has not identified "the processing taught by Chen" that could or would be suitable to add to "apparatus disclosed by Desai" in order to arrive at the presently claimed combination(s) of method elements as claimed.

The KSR opinion requires that '[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness'. Absent the elements or the showing of a teaching, suggestion or motivation to combine such elements in the manner claimed, and a clear statement and rational analysis of its basis, an obviousness rejection cannot stand.

The Examiner is not suggesting combining all of Chen's apparatus with all of Desai's apparatus. But even if he is, there is still no disclosure of simultaneously received first and second streams of image-representative video data in either reference, a significant element of all of the rejected claims. Furthermore, Chen never mentions that he is dealing with low definition and high definition data streams. At col. 4, line 48, Chen specifically states:

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"When the television program is in an MPEG – 2 or similar format, the DAIM (Digital Ad Insertion Module) maintains compliance with the MPEG – 2 protocol".

Later, at col. 8, line 2, Chen states:

"In this case, the data rate of each elementary stream in the insertion stream should be the same as the data rate of the corresponding program in the main stream".

Thus, Chen teaches away from Desai's disclosure of combining higher and lower resolution data segments in a single datastream. Chen states MPEG-2 (high definition) data "should be" provided for both the television program (movie) video and the inserted advertising video. Chen does not describe combining two streams of video having different (high and low) resolution.

Applying the TSM rationale, the CAFC has consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teachings in the particular manner claimed (see, e.g. *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000)).

The lack of an appropriate showing of motivation in this case is demonstrated by the holding in *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) where the CAFC held:

"Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed" (emphasis added).

Furthermore, the Examiner's statement regarding "motivation" is submitted to be unrelated to making out a *prima facie* case of obviousness with regard to the rejected claims based on Desai in view of Chen. The Examiner's interpretation of a showing of motivation or suggestion misses the mark since, as pointed out above, there is no mention in either Desai or Chen of simultaneously receiving separate high resolution and low resolution datastreams and that feature is found only in Appellant's disclosure, not in either of the cited references.

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Thus, the Examiner has failed to indicate anything in either of the references which would lead one to combine them in any manner, and certainly not to arrive at the invention of claim 1. It is submitted therefore that a *prima facie* case of obviousness of the rejected independent claim 1 has not been made out by the Examiner.

Therefore, the rejection of claims 2 and 4 - 8 which are dependent on claim 1 should also be reversed for the foregoing reasons.

Claims 11 - 15, which are dependent on claim 9, have also been rejected as obvious in view of the combination of Desai in view of Chen. The foregoing remarks regarding the lack of any basis for combining the two cited references apply to the rejection of claims 11 - 15 as well and are incorporated herein by reference.

In addition, there is an absence of any disclosure in either Desai or Chen of "a first video stream" in combination with "a second simultaneous stream" (see independent claim 9) as was pointed out above. Furthermore, referring to independent claim 9, each of claims 11 - 15 also incorporates a step of "decoding said video program (e.g. "main") encoded data and said video segment (e. g. "ad" ) encoded data simultaneously to provide a decoded first resolution data output and a decoded second resolution data output respectively using said identification information". Again, neither Desai nor Chen discloses or suggests "simultaneously" decoding a first resolution data output and a second lower resolution data output.

Lacking these claim elements and lacking any "teaching, suggestion or motivation" for combining Desai and Chen as pointed out above, it is submitted that no *prima facie* case of obviousness has been made out with respect to claims 11 - 15.

Therefore, the rejection of claims 11 - 15 which are dependent on claim 9 should also be reversed for the foregoing reasons.

The § 103(a) Rejections of Claims 3, 9 - 10 and 16 - 18 Based on The Combination of Desai, Chen and Sakamoto are Traversed

Claims 3, 9 - 10 and 16 - 18 have been rejected as obvious compared to a combination of Desai and Chen and Sakamoto.

The Examiner relies upon Sakamoto for the following elements

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not disclosed in Desai or Chen (Final Rejection, pages 5 - 6):

"Regarding claims 3 and 10 ---Sakamoto discloses

"upconverting the decoded second resolution data---";

"Regarding claim 9, note the Examiner's rejection for claim 1  
and in addition Sakamoto further discloses "decoding the video  
program to provide a decoded first resolution data and a  
decoded second resolution data---";Regarding claims 16 - 17, Sakamoto discloses "storing data in a  
buffer---"; and"regarding claim 18, Sakamoto discloses "the buffer is MPEG  
compliant ---".

However, as pointed out above, there is an absence of any  
disclosure in either Desai or Chen of "a first video stream" in combination with  
"a second simultaneous stream" (see independent claim 9). Sakamoto does  
not fill this gap as is evident from the Examiner's lack of any mention of those  
elements in connection with Sakamoto.

Furthermore, referring to independent claim 9, it (and claim 10)  
also includes a step of "decoding said video program (e.g. "main") encoded  
data and said video segment (e. g. "ad" ) encoded data simultaneously to  
provide a decoded first resolution data output and a decoded second  
resolution data output respectively using said identification information".  
Again, neither Desai nor Chen nor Sakamoto discloses or suggests  
"simultaneously" decoding a first resolution data output and a second lower  
resolution data output.

Lacking these claim elements and lacking any "teaching,  
suggestion or motivation" for combining Desai and Chen or Desai, Chen and  
Sakamoto as pointed out above, it is submitted that no *prima facie* case of  
obviousness has been made out with respect to any of claims 3, 9 - 10 or 16  
- 18.

Therefore, the rejection of claims 3, 9 - 10 and 16 - 18 which  
are dependent on claim 9 should also be reversed for the foregoing reasons.

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**No Prima Facie Case of Obviousness Exists Based on the Combination of the Cited Patents**

The primary reference, Desai, has been acknowledged by the Examiner as lacking an element of independent Claims 1 and 9.

The Examiner has attempted to rely on the secondary patent of Chen to supply that missing claim element. Chen does not. Furthermore, the Examiner is not free to create a combination of Desai and Chen in the absence of either a teaching, suggestion or motivation in the applied references to do so with a reasonable expectation of success. In view of the substantial lack of relevant teachings and disclosure in the Chen patent as pointed out above, one skilled in the art would not be aware that there is any reason or basis to consider Desai and Chen together. Without such an awareness, the skilled artisan would not be motivated to modify the teachings of either of these patents.

It should be apparent that each of Desai and Chen is substantially different from the invention set forth in the rejected claims of this application and Chen does not fill a gap which the Examiner has acknowledged exists.

According to the teachings and disclosure set forth in Chen, the ordinary skilled artisan would not be motivated to modify the teachings of the Desai patent. Consequently, the Chen patent cannot provide a basis for a position that its disclosure provides the skilled artisan a motivation to add something to Desai which is not disclosed or suggested by either Desai or Chen that would produce a useful, successful apparatus or method. Neither of the disclosures of the Desai or Chen patents acknowledges that there is any problem present in their systems which could be solved by any such combination.

With respect to the Examiner's attempt to combine Desai and Chen with Sakamoto, It is submitted that one skilled in the art would not be motivated to combine their teachings for any useful purpose. It is respectfully submitted that the suggested combination can be motivated, if at all, solely by hindsight reasoning guided by the appellant's own disclosure — reasoning that is expressly forbidden during the examination of a claim under § 103(a). *In re Gorman*, 18 U.S.P.Q.2d 1885, 1888 (Fed. Cir. 1991); *In re Fritch*, 23

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U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992).


CONCLUSION

For the foregoing reasons, Appellant submits there is no motivation for and no direct or indirect suggestion of Appellant's claimed combinations of method elements in the cited references.

The proposition by the Examiner that the prior art may be modified in the manner suggested by the Examiner to produce the Appellant's claimed arrangements does not make the modifications obvious. The case of *Panduit Corp. v. Dennison Mfg Co.*, 774 F. 2d 1082, 1095 (Fed. Cir. 1985), vacated, 475 U.S. 809 (1986), aff'd on remand, 810 F.2d 1561 (Fed. Cir. 1987), held that, "prior art references must be evaluated on what they taught or suggested...when the invention was made, not on hypothetical modifications or combinations to arrive at the Appellant's claimed features relying on the hindsight benefit of Appellant's teaching", and there is no motivation in the references to suggest Appellant's claimed combination.

Accordingly, Appellant submits that the Examiner's rejection should be reversed as to Claims 1 – 18 and that the application should be allowed.

Respectfully submitted,

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**APPENDIX I - APPEALED CLAIMS****WHAT IS CLAIMED IS:**

1. A method for processing packetized video data, comprising the steps of:
  - receiving a first video stream comprising encoded data representing a first video program having a first display resolution;
  - simultaneously receiving a second video stream comprising encoded data representing a second video program of a second display resolution lower than said first display resolution;
  - processing transmission identification information for signaling a transition from said first display resolution program to said second display resolution program ;
  - seamlessly incorporating said first video program encoded data and said second video program data and said identification information into packetized data; and
  - providing said packetized data for output in a seamless stream for output to a transmission channel.
2. The method of claim 1, wherein said transition is a seamless transition employing a buffer which holds and outputs sufficient video data to match the time for switching said first and second video streams.
3. The method of claim 1, further comprising the step of upconverting the decoded second resolution data in a decoder to provide commercials of first resolution for seamless insertion in the video program.
4. The method of claim 1, wherein the second video program comprises a video commercial.
5. The method of claim 1, wherein the first video program is a network video feed and the second video program is a local video program.

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6. The method of claim 1, wherein the second video program is a local news program.

7. The method of claim 1, wherein said encoded data representing the first video program is generated by a network station and said encoded data representing the second video program is generated by a local station.

8. The method of claim 7, wherein said packetized data is output to a transmission channel by a satellite.

9. A method for decoding image representative input data representing a video program of a first display resolution and incorporating video segments of a lower second display resolution, comprising the steps of:  
identifying a first video stream of encoded data representing a video program of a first display resolution;

identifying a second simultaneous stream of encoded data representing a video segment of a second display resolution lower than said first display resolution for insertion within said video program;

acquiring identification information for signaling a transition from said first display resolution to said second display resolution; and

decoding said video program encoded data and said video segment encoded data simultaneously to provide a decoded first resolution data output and a decoded second resolution data output respectively using said identification information; and

seamlessly formatting said first and second resolution decoded data outputs for display.

10. The method of claim 9, further comprising the step of upconverting the decoded second resolution data to provide video segment data of first resolution for seamless insertion in the video program.

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11. The method of claim 9, wherein the video segment represents a video commercial, said decoding employing a buffer which holds and outputs sufficient video data to match the time for switching between said first and second video streams.
12. The method of claim 9, wherein the first video program is a network video feed and the video segment is a local video program.
13. The method of claim 9, wherein the video segment is a local news program.
14. The method of claim 9, wherein said encoded data representing the first video program is generated by a network station and said encoded data representing the video segment is generated by a local station.
15. The method of claim 14, wherein said packetized data is output to a transmission channel by a satellite.
16. A method according to claim 9, wherein said decoding step comprises the step of storing both said data representing said video program and data representing said video segment in a buffer.
17. A method according to claim 16, wherein said buffer normally stores video data of said first, higher, display resolution.
18. A method according to claim 17, wherein said buffer is MPEG compliant and holds sufficient video data to match the time for switching video streams.

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APPENDIX II - EVIDENCE

None submitted

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APPENDIX III - RELATED PROCEEDINGS

None